State of Delaware Department of Natural Resources and Environmental Control Division of Air Quality

Blue Hen Corporate center 655 S. Bay Road, Suite 5N Dover, DE 19901

Proposed 7 DE Admin Code 1130 (Title V) Operating Permit Facility I.D. Number: 1000300111 Permit Number: AQM-003/00111-Renewal 2

<u>Proposed Effective Date</u>: May 10, 2012 <u>Expiration Date</u>: Five years from issue date

Renewal Application Due Date: One year prior to expiration date

Pursuant to 7 **Del. C.**, Ch 60, Section 6003, 7 **DE Admin. Code** 1102 Section 2.0, and 7 **DE Admin. Code** 1130 Section 7.2, approval by the Department of Natural Resources and Environmental Control ("Department") is hereby granted to operate the emission units listed in Condition 1 of this permit subject to the terms and conditions of this permit.

This approval is granted to:

Permittee/Owner (hereafter referred to as "Company/Owner")	Operator (hereafter referred to as "Operator")
Delaware Solid Waste Authority PO Box 455 Dover, DE 19903 Responsible Officials: Pasquale S. Canzano Chief Executive Officer Richard P. Watson Chief Operating Officer	Delaware Solid Waste Authority PO Box 455 Dover, DE 19903
Plant Site Location (hereafter referred to as "Facility")	Plant Mailing Address
Northern Solid Waste Management Center (Cherry Island Landfill) 12 th Street and Hay Road, Wilmington, DE 19809	1706 E. 12 th Street, Wilmington, DE 19809

The nature of business of the Facility is Municipal Solid Waste Disposal. The Standard Industrial Classification code is 4953. The North American Industry Classification System code is 562212.

Shaikh A. Tayeb, P.E. Engineer Engineering & Compliance Branch (302) 323-4542 Paul E. Foster, P.E. Program Manager Engineering & Compliance Branch (302) 323-4542

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Condition 1-Emission Units Identification.

[Reference: 7 **DE Admin. Code** 1130 Section 3.3 dated 11/15/93]

a. Emission Units Information.

Emission Units	Emission Unit Description	
Emission Unit 1	Twelve (12) portable passive flares.	
Emission Unit 2	ZULE -A ("Zink-A"): Low-NOx enclosed flare with a maximum rated gas flow rate of 4500 scfm.	
Emission Unit 3	ZULE -B ("Zink-B"): Low-NOx enclosed flare with a maximum rated gas flow rate of 4500 scfm.	
Emission Unit 4	Landfill gas collection and control system.	
Emission Unit 5	Gas Treatment Plant ("Gas Plant").	
Emission Unit 6	55 KW Diesel fired emergency generator.	

b. 7 DE Admin Code 1102 Permit Identification.

This table identifies the underlying permits whose provisions have been incorporated into this Title V permit and specifies the reference number that will be used to identify the source of the underlying permit condition throughout this Title V permit.

Reference	Full 7 DE Admin Code 1102 Permit Designation	
APC-95/0466	<u>APC-95/0466-Operation</u> , dated May 15, 1995.	
Twelve (12) passive flares.		
APC-2004/0746 APC-2004/0746-Operation (NSPS)(MACT), dated February 4, 2008.		
APC-2004/0746	Two Low-NOx enclosed flares (with a maximum rated gas flow rate of 4500 scfm each)	

Condition 2 - General Requirements

a. Certification.

- Each document submitted to the Department/EPA as required by this permit shall be certified by a Responsible Official as to truth, accuracy, and completeness. Such certification shall be signed by a Responsible Official and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." [Reference: 7 DE Admin. Code 1130 Section 5.6 dated 11/15/93 and 6.3.1 dated 12/11/00]
- 2. Any report of deviations required under Conditions 3(c)(2)(ii) or 3(c)(2)(iii) that must be submitted to the Department within ten calendar days of discovery of the deviation, may be submitted in the first instance without a certification provided a certification meeting the requirements of Condition 2(a)(1) is submitted to the Department within ten calendar days thereafter, together with any corrected or supplemental information required concerning the deviation. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.3.4 dated 12/11/00]
- 3. Each document submitted to the Department/EPA pursuant to this permit shall be sent to the following addresses except as noted in Condition 2(a)(4):

State of Delaware – DNREC	United States Environmental Protection Agency
Division of Air Quality	Associate Director of Enforcement (3AP00)
Blue Hen Corporate Center	1650 Arch Street
655 S. Bay Road, Suite 5 N	Philadelphia, PA 19103
Dover, DE 19901	
ATTN: Division Director	
No. of Originals: 1 & No. of Copies: 1	No. of Copies: <u>1</u>

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4. In lieu of submitting a physical copy of the Compliance Certification report specified in Condition 3(c)(3) of this permit to the EPA, the Owner and/or Operator may, and is encouraged to, submit an electronic copy of the report to R3_APD_Permits@epa.gov as a PDF document. The signed original annual General Certification report must be submitted to the Department at the address in Condition 2(a)(3).

b. Compliance.

1. The Owner and/or Operator shall comply with all terms and conditions of this permit. Any noncompliance with this permit constitutes a violation of the applicable requirements under the Clean Air Act, and/or 7 **DE Admin. Code** 1100, and is grounds for an enforcement action; for permit termination, revocation, and reissuance or modification; or for denial of a permit renewal. [Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.1 dated 12/11/00]

2.

- i. For applicable requirements with which the source is in compliance, the Owner and/or Operator shall continue to comply with such requirements. [Reference: 7 DE Admin. Code 1130 Sections 5.4.8.3.1 dated 11/15/93 and 6.3.3 dated 12/11/00]
- ii. For applicable requirements that will become effective during the term of this permit, the Owner and/or Operator shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [Reference: 7 DE Admin. Code 1130 Sections 5.4.8.3.2 dated 11/15/93 and 6.3.3 dated 12/11/00]
- 3. Nothing in Condition 2(b)(1) of this permit shall be construed to preclude the Owner and/or Operator from making changes consistent with Condition 2(m)(3) [Minor Permit Modifications] or Condition 4(a) [Operational Flexibility]. [Reference: 7 DE Admin. Code 1130 Sections 6.8 dated 12/11/00 and 7.5.1.5 dated 12/11/00]
- 4. The fact that it would have been necessary to halt or reduce an activity in order to maintain compliance with the terms and conditions of this permit shall not constitute a defense for the Owner and/or Operator in any enforcement action. Nothing in this permit shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious that the impacts of continuing operations. [Reference: 7 DE Admin. Code 1130 Section 6.1.7.2 dated 12/11/00]
- 5. The Owner and/or Operator may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency or malfunction if both the record keeping requirements in Condition 3(b)(2)(iii) and the reporting requirements in Condition 3(c)(2)(ii)(A) are satisfied. [Reference: 7 DE Admin. Code 1130 Section 6.7.2 dated 12/11/00]

6.

- i. In any enforcement proceeding, the Owner and/or Operator seeking to establish the occurrence of an emergency or malfunction has the burden of proof. [Reference: 7 DE Admin. Code 1130 Section 6.7.4 dated 12/11/00]
- ii. The provisions of 7 **DE Admin. Code** 1130 pertaining to Emergency/Malfunctions as defined in Conditions Nos. 2(b)(5); 2(b)(6); 3(b)(2)(iii); and 3(c)(2)(ii)(A) of this permit are in addition to any emergency or malfunction provision contained in any applicable requirement. [Reference: 7 **DE Admin. Code** 1130 Section 6.7.5 dated 12/11/00]

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Condition 2- General Requirements (Cont.)

- Reserved.
- 8. If required, the schedule of compliance in Condition 5 of this permit is supplemental to and shall not sanction noncompliance with the applicable requirements upon which it is based. [Reference: 7 **DE Admin. Code** 1130 Section 5.4.8.3.3 dated 11/15/93]
- 9. Nothing in this permit shall be interpreted to preclude the use of any credible evidence to demonstrate noncompliance with any term of this permit. [Reference: 62 FR 8314 dated 2/24/97]
- 10. All terms and conditions of this permit are enforceable by the Department and by the U.S. Environmental Protection Agency ("EPA") unless specifically designated as "State Enforceable Only" [Reference: 7 DE Admin. Code 1130 Section 6.2.1 dated 12/11/00]
- c. <u>Confidentiality</u>. The Owner and/or Operator may make a claim of confidentiality for any information or records submitted to the Department. However, by submitting a permit application, the Owner and/or Operator waives any right to confidentiality as to the contents of its permit, and the permit contents will not be entitled to protection under 7 **Del. C.**, Ch 60, § 6014. [Reference: 7 **DE Admin. Code** 1130 Sections 5.1.4 dated 11/15/93, 6.1.3.3.5 dated 12/11/00, and 6.1.7.5 dated 12/11/00]
 - 1. Confidential information shall meet the requirements of 7 **Del. C.**, Ch 60, § 6014, and 29 **Del. C.**, Ch 100. [Reference: 7 **DE Admin. Code** 1130 Section 5.1.4 dated 11/15/93]
 - 2. If the Owner and/or Operator submits information to the Department under a claim of confidentiality, the Owner and/or Operator shall also submit a copy of such information directly to the EPA, if the Department requests that the Owner and/or Operator do so. [Reference: 7 DE Admin. Code 1130 Section 5.1.4 dated 11/15/93]
- d. Construction, Installation, or Alteration. The Owner and/or Operator shall not initiate construction, installation, or alteration of any equipment or facility or air contaminant control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department under 7 DE Admin. Code 1102, and, when applicable, 7 DE Admin. Code No. 1125, and receiving approval of such application from the Department; except as exempted in 7 DE Admin. Code 1102 Section 2.2. [Reference: 7 DE Admin. Code 1102 Section 2.1 dated 6/1/97 and 7 DE Admin. Code 1130 Section 7.2.3 dated 12/11/00]
- **e.** <u>Definitions/Abbreviations</u>. Except as specifically provided for below, for the purposes of this permit, terms used herein shall have the same meaning accorded to them under the applicable requirements of the Clean Air Act and 7 **DE Admin. Code** 1100.
 - 1. "Act" means the Clean Air Act, as amended by the Clean Air Act Amendments of November 15, 1990, 42 U.S.C. 7401 et seq. [Reference: 7 **DE Admin. Code** 1130 Section 2 dated 11/15/93]
 - 2. "AP-42" means the Compilation Of Air Pollutant Emission Factors, Fifth Edition, AP-42, dated January 15, 1995, as amended with Supplements "A" dated February 1996, "B" dated November 1996, "C" dated November 1997, "D" dated August 1998, "E" dated September 1999, and "F" dated September 2000 and the December 2001 update, the December 2002 update and the December 2003 update.
 - 3. "CFR" means Code of Federal Regulations.
 - 4. "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the sources, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a

Condition 2- General Requirements (Cont.)

technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [Reference: 7 DE Admin. Code 1130 Section 6.7.1 dated 12/11/00]

- 5. "Malfunction" means any sudden and unavoidable failure of air pollution control equipment or of a process to operate in a normal or usual manner, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the malfunction. A malfunction shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [Reference: 7 DE Admin. Code 1130 Section 6.7.1 dated 12/11/00]
- 6. "Number 2 fuel oil" and "No. 2 fuel oil" means distillate oil.
- 7. "Reg." and "Regulation" mean the regulations covered under 7 **DE Admin. Code** 1100.
- 8. "Regulations Governing the Control of Air Pollution" means the codification of those regulations enacted by the Delaware Department of Natural Resources and Environmental Control, in accordance with 7 **Del. C.,** Ch 60, § 6010.

f. Duty to Supplement.

- Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the Owner and/or Operator shall promptly submit to the Department such supplementary facts or corrected information. [Reference: 7 DE Admin. Code 1130 Section 5.2 dated 11/15/93]
- The Owner and/or Operator shall promptly submit to the Department information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to the release of a corresponding draft permit. [Reference: 7 DE Admin. Code 1130 Section 5.2 dated 11/15/93]
- <u>3.</u> The Owner and/or Operator shall furnish to the Department, upon receipt of a written request and within a reasonable time specified by the Department:
 - i. Any information that the Department determines is reasonably necessary to evaluate or take final action on any permit application submitted in accordance with Condition 2(l) or 2(m) of this permit. The Owner and/or Operator may request an extension to the deadline the Department may impose on the response for such information. [Reference: 7 DE Admin. Code 1130 Section 5.1.2.3 dated 11/15/93]
 - ii. Any information that the Department requests to determine whether cause exists to modify, terminate, or revoke this permit, or to determine compliance with the terms and conditions of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.1.7.5 dated 12/11/00]
 - iii. Copies of any records required to be kept by this permit. [Reference: 7 **DE Admin. Code** 1130 Section 6.1.7.5.7 dated 12/11/00]
- **g.** <u>Emission Trading</u>. No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. [Reference: 7 DE Admin. Code 1130 Section 6.1.9 dated 12/11/00]

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Condition 2- General Requirements (Cont.)

- **h.** <u>Fees</u>. The Owner and/or Operator shall pay fees to the Department consistent with the fee schedule established by the Delaware General Assembly. [Reference: 7 DE Admin. Code 1130 Section 6.1.8 dated 12/11/00 and Section 9.0 dated 11/15/93]
- **i.** <u>Inspection and Entry Requirements</u>. Upon presentation of identification, the Owner and/or Operator shall allow authorized officials of the Department to perform the following:
 - <u>1.</u> Enter upon the Owner and/or Operator's premises where a source is located or an emissions-related activity is conducted, or where records that must be kept under the terms and conditions of this permit are located. [Reference: 7 DE Admin. Code 1130 Section 6.3.2.1 dated 12/11/00]
 - 2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit. /Reference: 7 DE Admin. Code 1130 Section 6.3.2.2 dated 12/11/00]
 - 3. Inspect, at reasonable times and using reasonable safety practices, any facility, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. [Reference: 7 DE Admin. Code 1130 Section 6.3.2.3 dated 12/11/00]
 - 4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirement. [Reference: 7 DE Admin. Code 1130 Section 6.3.2.4 dated 12/11/00]
- **j. Permit and Application Consultation**. The Owner and/or Operator is encouraged to consult with Department personnel before submitting an application or, at any other time, concerning the operation, construction, expansion, or modification of any installation, or concerning the required pollution control devices or system, the efficiency of such devices or system, or the pollution problem related to the installation. [Reference: 7 **DE Admin. Code** 1130 Section 5.1.1.7 dated 11/15/93]
- **k.** <u>Permit Availability</u>. The Owner and/or Operator shall have available at the facility at all times a copy of this permit and shall provide a copy of this permit to the Department upon request. [Reference: 7 DE Admin. Code 1102 Section 8.1 dated 6/1/97]
- **I.** <u>Permit Renewal</u>. This permit expires on <u>May 10, 2017</u> except as provided in Condition 2(I)(4) below. [Reference: 7 DE Admin. Code 1130 Section 6.1.2 dated 12/11/00]
 - 1. Applications for permit renewal shall be subject to the same procedural requirements, including those for public participation, affected state comment, and EPA review, that apply to initial permit issuance under 7 **DE Admin. Code** 1130 Section 7.1, except that an application for permit renewal may address only those portions of the permit that the Department determines require revision, supplementing, or deletion, incorporating the remaining permit terms by Reference: from the previous permit. The Department may similarly, in issuing a draft renewal permit or proposed renewal permit, specify only those portions that will be revised, supplemented, or deleted, incorporating the remaining permit terms by Reference:. [Reference: 7 DE Admin. Code 1130 Section 7.3.1 dated 12/11/00]
 - 2. The Owner and/or Operator's right to operate shall cease upon the expiration date unless a timely and complete renewal application has been submitted to the Department by May 10, 2016. [Reference: 7 DE Admin. Code 1130 Section 7.3.2 dated 12/11/00]
 - 3. The Department shall review each application for completeness and shall inform the applicant within 60 days of receipt if the application is incomplete. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness within 60 days of an application, an application will be deemed complete if it contains the information required by the

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application form and 7 **DE Admin. Code** 1130 Section 5.4. [Reference: 7 **DE Admin. Code** 1130 Section 5.1.2.1 dated 11/15/93

4. If a timely and complete application for a permit renewal is submitted to the Department pursuant to 7 **DE Admin. Code** 1130, Section 5.1.2.4 (dated 11/15/93) and Section 7.3.1 (dated 12/11/00) and the Department, through no fault of the Owner and/or Operator, fails to take final action to issue or deny the renewal permit before the end of the term of this permit, then this permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time. [Reference: 7 DE Admin. Code 1130 Section 7.3.3 dated 12/11/00]

m. Permit Revision and Termination.

<u>1.</u>

- i. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. [Reference: 7 DE Admin. Code 1130 Section 6.1.7.3 dated 12/11/00]
- ii. Except as provided under Condition 2(m)(3) ["Minor Permit Modification"], the filing of a request by the Owner and/or Operator for a permit modification, revocation and reissuance, or termination, or of a modification of planned changes or anticipated noncompliance does not stay any term or condition of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.1.7.3 dated 12/11/00 and 7.5.1.5 dated 12/11/00]
- 2. "Administrative Permit Amendment." When required, the Owner and/or Operator shall submit to the Department a request for an administrative permit amendment in accordance with 7 **DE Admin. Code** 1130 Section 7.4. [Reference: 7 **DE** Admin. Code 1130 Section 7.4 dated 12/11/00]
- 3. "Minor Permit Modification." When required, the Owner and/or Operator shall submit to the Department an application for a minor permit modification in accordance with 7 **DE Admin. Code** 1130 Section 7.5.1 and 7.5.2. [Reference: 7 **DE Admin. Code** 1130 Section 7.5.1 dated 12/11/00 and 7.5.2 dated 12/11/00]
 - i. For a minor permit modification, during the period of time between the time the Owner and/or Operator makes the change or changes proposed in the minor permit modification application and the time that the Department takes action on the application, the Owner and/or Operator shall comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this period the Owner and/or Operator, at its own risk, need not comply with the existing terms and conditions of this permit that it seeks to modify. [Reference: 7 DE Admin. Code 1130 Section 7.5.1.5 dated 12/11/00 and 7.5.2.5 dated 12/11/00]
 - ii. If the Owner and/or Operator fail to comply with its proposed permit terms and conditions during this time period, the existing terms and conditions of this permit may be enforced against the Owner and/or Operator. [Reference: 7 DE Admin. Code 1130 Section 7.5.1.5 dated 12/11/00 and 7.5.2.5 dated 12/11/00]
- 4. "Significant Permit Modification." When required, the Owner and/or Operator shall submit to the Department an application for a significant permit modification in accordance with 7 **DE Admin. Code** 1130 Section 7.5.3. [Reference: 7 **DE Admin. Code** 1130 Section 7.5.3 dated 12/11/00]

5.

i. When the Owner and/or Operator is required to meet the requirements under Section 112(g) of the Act or to obtain a preconstruction permit under 7 **DE Admin. Code** 1100, the Owner

Condition 2- General Requirements (Cont.)

and/or Operator shall file a complete application to revise this permit within 12 months of commencing operation of the construction or modification. [Reference: 7 **DE Admin. Code** 1130 Section 5.1.1.4 dated 11/15/93]

- ii. When the Owner and/or Operator is required to obtain a preconstruction permit, the Owner and/or Operator may submit an application to revise this permit for concurrent processing. The revision request for this permit when submitted for concurrent processing shall be submitted to the Department with the Owner and/or Operator's preconstruction review application or at such later time as the Department may allow. Where this permit would prohibit such construction or change in operation, the Owner and/or Operator shall obtain a permit revision before commencing operation. [Reference: 7 DE Admin. Code 1102 Sections 11.2.10, 11.5 and 12.4, dated 6/11/06, and 7 DE Admin. Code 1130 Section 5.1.1.4 dated 11/15/93]
- iii. Where an application is not submitted for concurrent processing, the Owner and/or Operator shall obtain an operating permit under 7 **DE Admin. Code** 1100 prior to commencing operation of the construction or modification to cover the period between the date operation is commenced and until such time as operation is approved under 7 **DE Admin. Code** 1130. [Reference: 7 **DE Admin. Code** 1102 Section 2.1 dated 6/11/06]
- 6. "Permit Termination." The Owner and/or Operator may at any time apply for termination of this permit in accordance with 7 **DE Admin. Code** 1130 Section 7.8.4 or Section 7.8.5. [Reference: 7 **DE Admin. Code** 1130 Sections 7.8.4 dated 12/11/00 and 7.8.5 dated 12/11/00]

n. Permit Transfer.

- 1. A change in ownership or operational control of this facility shall be treated as an administrative permit amendment where the Department has determined that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new owner has been submitted to the Department. [Reference: 7 DE Admin. Code 1130 Section 7.4.1.4 dated 12/11/00]
- 2. In addition to any written agreement submitted by the Owner and/or Operator in accordance with Condition 2(n)(1), the Owner and/or Operator shall have on file at the Department a statement meeting the requirements of 7 Del. C., Ch 79, Section 7902. This permit condition is state enforceable only. [Reference: 7 Del. C., Ch 79 Section 7902 dated 8/28/2007]
- 3. The written agreement required in Condition 2(n)(1) of this permit shall be provided to the Department within a minimum of 30 calendar days prior to the specific date for transfer and shall indicate that the transfer is agreeable to both the current and new owner. [Reference: 7 DE Admin. Code 1102 Section 7.1 dated 6/1/97]
- **o.** <u>Property Rights</u>. This permit does not convey any property rights of any sort, or any exclusive privilege. [Reference: 7 DE Admin. Code 1130 Section 6.1.7.4 dated 12/11/00]

p. Risk Management Plan Submissions.

1. In the event this stationary source, as defined in the State of Delaware 7 **DE Admin. Code** 1201 "Accidental Release Prevention Regulation" Section 4.0, is subject to or becomes subject to Section 5.0 of 7 **DE Admin. Code** 1201 (as amended March 11, 2006), the owner or operator shall submit a risk management plan (RMP) to the Environmental Protection Agency's RMP Reporting Center by the date specified in Section 5.10 and required revisions as specified in Section 5.190. A certification statement shall also be submitted as mandated by Section 5.185.

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[Reference: 7 **DE Admin. Code** 1130 Section 6.1.4 dated 12/11/00, 7 **DE Admin. Code** 1201 as amended March 11, 2006 and Delaware; Approval of Accidental Release Prevention Program, Federal Register Vol. 6, No. 11 pages 30818-22 dated June 8, 2001]

2. If this stationary source, as defined in 7 **DE Admin. Code** 1201 Section 4.0, is not subject to Section 5.0 but is subject or becomes subject to Section 6.0 (as amended March 11, 2006), the owner or operator shall submit a Delaware RMP to the State of Delaware's Accidental Release Prevention group by the date as specified in Section 6.6.10 and required revisions as specified by Section 6.6.1. Note: State enforceable only. [Reference: 7 DE Admin. Code 1201 as amended March 11, 2006]

q. Protection of Stratospheric Ozone.

When applicable, this Facility shall comply with the following requirements: [Reference: 40 CFR Part 82 "Protection of Stratospheric Ozone" revised as of 7/1/97 and 7 DE Admin. Code 1130 Section 2.0 dated 11/15/93]

- 1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - i. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a process that uses a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - ii. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - iii. The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - iv. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2. Any person servicing, maintaining, or repairing appliances, except for motor vehicles, shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B. In addition, Subpart F applies to refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment.
 - i. Persons owning appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to §82.154 and §82.156.
 - ii. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - iii. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - iv. Persons performing maintenance, service, repair, or disposal of appliances must certify with the Administrator pursuant to §82.158 and §82.162.
 - v. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like appliance" as defined at §82.152)

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Condition 2- General Requirements (Cont.)

- vi. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
- 3. Owners/Operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR Part 82, Subpart F §82.166.
- 4. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, "Production and Consumption Controls".
- <u>5.</u> If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners".
 - i. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. These systems are regulated under 40 CFR Part 82, Subpart F.
- <u>6.</u> The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed as acceptable in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program.
- **r. Severability**. The provisions of this permit are severable. If any part of this permit is held invalid, the application of such part to other persons or circumstances and the remainder of this permit shall not be affected thereby and shall remain valid and in effect. [Reference: 7 DE Admin. Code 1130 Section 6.1.6 dated 12/11/00]

Condition 3- Specific Requirements

- **a.** Emission Limitations Emission Standards, Operational Limitations, and Operational Standards. The Owner and/or Operator shall comply with the limitations and standards detailed in Condition 3 Table 1 of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.1.1 dated 12/11/00]
- **b.** Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping). The Owner and/or Operator shall maintain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all original strip-chart recordings, where appropriate, for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, the permit may specify that records may be maintained in computerized form. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.2 dated 12/11/00]

1.

i. <u>Specific Requirements</u>. The Owner and/or Operator shall comply with the operational limitations, monitoring, testing, and record keeping requirements detailed in Condition 3 – Table 1 which are in addition to those in Conditions 3(b)(1)(ii) and 3(b)(2) of this permit. [Reference: 7 **DE Admin. Code** 1130 Sections 6.1.1 dated 12/11/00, 6.1.3.1 dated 12/11/00, and 6.1.10 dated 12/11/00]

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Condition 3- Specific Requirements (Cont.)

- ii. <u>General Testing Requirements</u>. Upon written request of the Department, the Owner and/or Operator shall, at the Owner and/or Operator's expense, sample the emissions of, or fuel used by, an air contaminant emission source, maintain records, and submit reports to the Department on the results of such sampling. [Reference: 7 DE Admin. Code 1117 Section 2.2 dated 7/17/84]
- 2. <u>General Record Keeping Requirements</u>. The Owner and/or Operator shall record, at a minimum, all of the following information:
 - i. If required, for each operating scenario identified in Condition 3 Table 1 of this permit, a log that indicates the operating scenario under which each particular emission unit is operating. The Owner and/or Operator shall, contemporaneously with changing from one operating scenario to another, record in this log the time at which the operating scenario under which it is operating is changed. [Reference: 7 DE Admin. Code 1130 Section 6.1.10 dated 12/11/00]
 - ii. The following information to the extent specified in Condition 3 Table 1 of this permit. [Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.2.1 dated 12/11/00]
 - A. The date, place, and time of the sampling or measurements. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.1 dated 12/11/00]
 - B. The dates analyses were performed. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.2 dated 12/11/00]
 - C. The Owner and/or Operator or entity that performed the analyses. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.3 dated 12/11/00]
 - D. The analytical techniques or methods used. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.4 dated 12/11/00]
 - E. The results of such analyses. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.5 dated 12/11/00]
 - F. The operating conditions as existing at the time of sampling or measurement. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.2.1.6 dated 12/11/00]
 - iii. If the Owner and/or Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5); a properly signed, contemporaneous operating logs, or other relevant evidence which indicates that: [Reference: 7 DE Admin. Code 1130 Section 6.7.3 dated 12/11/00]
 - A. An emergency or malfunction occurred and the causes of the emergency or malfunction. [Reference: 7 DE Admin. Code 1130 Section 6.7.3.1 dated 12/11/00]
 - B. The facility was at the time of the emergency or malfunction being operating in a prudent and professional manner and in compliance with the generally accepted industry operations and maintenance procedures. [Reference: 7 DE Admin. Code 1130 Section 6.7.3.2 dated 12/11/00]
 - C. During the period of the emergency or malfunction the Owner and/or Operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.7.3.3 dated 12/11/00]

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Condition 3- Specific Requirements (Cont.)

iv. A copy of the written notice required by Condition 3(c)(2)(iii) for each change made under Condition 4(c) [Operational Flexibility] of this permit shall be maintained with a copy of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]

c. Reporting and Compliance Certification Requirements.

1. <u>Specific Reporting/Certification Requirements</u>. The Owner and/or Operator shall comply with the Reporting/Certification Requirements detailed in Condition 3— Table 1 of this permit, which are in addition to those of Conditions 3(c)(2) and 3(c)(3) of this permit. Each report that contains any deviations from the terms of Condition 3— Table 1 shall identify the probable cause of the deviations and any corrective actions or preventative measures taken. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3 dated 12/11/00, 6.1.3.3.3.3 dated 12/11/00, and 6.1.3.3.3.4 dated 12/11/00]

2. General Reporting Requirements.

- i. The Owner and/or Operator shall submit to the Department a report of any required monitoring not later than the **first day of August** (covering the period from January 1 through June 30 of the current calendar year) and the **first day of February** (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each report shall identify any deviations from the monitoring, record keeping, and reporting requirements under this permit; and the probable cause of the deviations; and any corrective actions or preventative measures taken. If no deviations have occurred, such shall be stated in the report. [Reference: 7 **DE Admin. Code** 1130 Sections 6.1.3.3.1 dated 12/11/00, 6.1.3.3.2 dated 12/11/00, and 6.1.3.3.3.4 dated 12/11/00]
- ii. In addition to the semiannual monitoring reports required under Condition 3(c)(2)(i), the Owner and/or Operator shall submit to the Department supplemental written reports and/or notices identifying all deviations from permit conditions, probable cause of the deviations, and any corrective actions or preventative measures as follows: [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.4 dated 12/11/00]
 - A. If the Owner and/or Operator is claiming the affirmative defense of emergency or malfunction as provided in Condition 2(b)(5) of this permit, a notice of any deviation resulting from emergency or malfunction conditions shall be reported to the Department within two working days of the time when the technology-based emission limitations were exceeded. Such notice shall contain a description of the emergency or malfunction, any steps taken to mitigate emissions, and any corrective actions taken. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.1 dated 12/11/00 and 6.7.3.4 dated 12/11/00]
 - B. Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan, in the following manner: [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.2 dated 12/11/00]
 - 1. Emissions that pose an imminent and substantial danger to public health, safety or the environment must be reported by calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802. [Reference: 7 DE Admin. Code No 1130, Section 6.1.3.3.3.2 dated 12/11/2000]
 - 2. Emissions in excess of any permit condition or emissions which create a condition of air pollution but do not pose an imminent and substantial danger to public health, safety or the environment must either be called in to the Environmental Emergency Notification

Condition 3- Specific Requirements (Cont.)

and Complaint number (800) 662-8802 or faxed to (302) 739-2466. The ability to fax notifications to the Department may be revoked by the Department upon written notice to the Company and at the Department's sole discretion. [Reference: 7 DE Admin. Code No 1130, Section 6.1.3.3.3.2 dated 12/11/2000]

- C. All emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department in a written report pursuant to Condition 3(c)(2)(1) and/or the specific reporting requirements listed in Condition 3 Table 1 of this permit. [Reference: 7 DE Admin. Code 1130 Sections 6.1.3.3.3.3 dated 12/11/00 and 6.1.3.3.3.4 dated 12/11/00]
- D. Discharges to the atmosphere in excess of any quantity specified in the 7 **DE Admin. Code** 1203 ("**Reporting of a Discharge of a Pollutant or an Air Contaminant**") shall be reported, immediately upon discovery and after activating the appropriate site emergency plan, either in person or to the Department's 24-hour Environmental Emergency Notification and Complaint line (1-800-662-8802). Discharges in compliance with this permit and excess emissions previously reported under Condition 3(c)(2)(ii)(B) of this permit are exempt from this reporting requirement. [Reference: 7 **DE Admin. Code** 1130 Section 6.1.3.3.3.5 dated 12/11/00 and 7 **DE Admin. Code** 1203]
- iii. Prior to making a change as provided in Condition 4 [Operational Flexibility] of this permit the Owner and/or Operator shall give written notice to the Department and EPA at least seven calendar days before the change is to be made. [Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]
 - A. The seven day period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. [Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]
 - B. If less than seven calendar days notice is provided because of a need to respond more quickly to such unanticipated conditions, the Owner and/or Operator shall provide notice to the Department and EPA as soon as possible after learning of the need to make the change, together with the reasons why advance notice could not be given. [Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]
 - C. The written notice shall include all of the following information: [Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]
 - 1. The identification of the affected emission units and a description of the change to be made.
 - 2. The date on which the change will occur.
 - 3. Any changes in emissions.
 - 4. Any permit terms and conditions that are affected, including any new applicable requirements.
- iv. The Owner and/or Operator shall submit to the Department an annual emissions statement in accordance with 7 **DE Admin. Code** 1117 Section 7.0 not later than April 30 of each year, or other date as established by the Department, unless an extension by the Department is

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Condition 3- Specific Requirements (Cont.)

granted. Such emissions statement shall cover the preceding calendar year. [Reference: 7 DE Admin. Code 1117 Section 7.0 dated 1/11/93]

- v. If required, the Owner and/or Operator shall submit to the Department a progress report for applicable requirements identified in Condition 5 Table 1 of this permit. Such reports shall be submitted not later than the first day of August (covering the period from January 1 through June 30 of the current calendar year) and the first day of February (covering the period July 1 through December 31 of the previous calendar year) of each calendar year. Each progress report shall include the following: [Reference: 7 DE Admin. Code 1130 Sections 5.4.8 dated 11/15/93 and 6.3.4 dated 12/11/00]
 - A. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved. [Reference: 7 DE Admin. Code 1130 Section 6.3.4.1 dated 12/11/00]
 - B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [Reference: 7 DE Admin. Code 1130 Section 6.3.4.2 dated 12/11/00]
- vi. Nothing herein shall relieve the Owner and/or Operator from any reporting requirements under federal, state, or local laws. [Reference: 7 DE Admin. Code 1130 Section 6.1.3.3.3.5 dated 12/11/00]

3. General Compliance Certification Requirements.

- i. Compliance with terms and conditions of this permit shall be certified to the Department not later than the first day of February of each year unless the terms or conditions in Condition 3— Table 1 of this permit require compliance certifications to be submitted more frequently. Such certification shall cover the previous calendar year and shall be submitted on Form AQM-1001BB. The Compliance Certification shall include the following information: [Reference: 7 DE Admin. Code 1130 Section 6.3.5.1 dated 12/11/00]
 - A. The identification of each term or condition of the permit that is the basis of the certification. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.1 dated 12/11/00]
 - B. The Owner and/or Operator's current compliance status, as shown by monitoring data and other information reasonably available to the Owner and/or Operator. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.2 dated 12/11/00]
 - C. Such certification shall indicate whether compliance was continuous or intermittent during the covered period. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.3 dated 12/11/00]
 - D. The methods used for determining the compliance status of the Owner and/or Operator, currently and over the reporting period as required by the monitoring, record keeping, and reporting required under Condition 3. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.4 dated 12/11/00]
 - E. Such other facts as the Department may require to determine the compliance status of the source. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.3.5 dated 12/11/00]
- ii. Each compliance certification shall be submitted to the Department and EPA and shall be certified in accordance with Condition 2(a) of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.3.5.4 dated 12/11/00]

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Condition 3- Specific Requirements (Cont.)

iii. Any additional information possessed by the Owner and/or Operator that demonstrates noncompliance with any applicable requirement must also be used as the basis for compliance certifications. [Reference: 62 FR 8314 dated 2/24/97]



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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)

Reporting and Compliance Certification

a. Emission Unit No. 1

Twelve (12) Portable Passive Flares for Odor Control

1. Standards

i. Emission Standards

The flares shall be operated with no visible emissions as determined by Reference Method 22 (RM 22), except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. [Reference: 40 CFR Part 60.18(c)(1) dated 1/21/86]

- ii. <u>Emission Limitations</u> None.
- iii. <u>Operational Standards</u> None.

iv. Operational Limitations

- A. Each portable passive flare shall be used for temporary installation and operation **only as odor control device**. The passive flares do not in any way relieve the Company of the requirements of Condition 3–Table 1(b), (c) & (d), and cannot be used as a substitute control device. [Reference: Permit APC-95/0466-Operation dated 5/15/95, Conditions 3 and 7; **DE Admin Code** 1130 Sections 6.1.1 & 6.2.1 dated 12/11/00]
- B. Each portable passive flare assembly shall be tagged with a permanent identification that designates and identifies an individual flare unit. This designation shall be used in all relocation correspondence. [Reference: Permit APC-95/0466 -Operation dated 5/15/95, Condition 5]

v. Compliance Methods

Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]

vi. <u>Monitoring</u>

At a minimum, the owner/operator shall monitor the following: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]

- A. The number of hours and days each flare is in use.
- B. The operational limitations of Condition 3–Table 1(a)(1)(iv).

vii. Testing

In addition to that required by Condition 3(b)(1)(ii) of this permit, the owner/operator shall conduct a daily visible emissions observation at least for ten (10) minutes when landfill is in operation. [Reference: 7 DE Admin Code 1130 Sections 6.1.3 dated 12/11/00]

viii. <u>Quality Assurance/Quality Control</u> None.

Record Keeping

x. Reporting

In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall provide the following: [Reference: Permit APC-95/0466, Condition 7].

- A. A notification to the Department within 24 hours after relocation of flares within or to any DSWA landfill sites. This notification can be made via email or fax which includes the following information:
 - <u>1.</u> Which flare(s) is (are) being relocated.
 - 2. The site of the relocated flare(s).
 - <u>3.</u> The reason for the flare(s) relocation.
 - 4. The date and time the flare(s) was (were) relocated.
 - The intended period of time the flare(s) is(are) proposed for use at that location.
- B. The Company shall calculate/estimate the emissions from all passive flares used at the site based on actual hours of operation and include this information in the annual emissions inventory report. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1dated 12/11/00]
- xi. <u>Compliance Certification</u>
 In addition to that required by Condition

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<u>condition 3 – Table 1. Specific Requirements (continued)</u>			
	ssion Limitations, Emission Standards, erational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
D. E. F.	The identification tag shall be of a physical form approved by the Department, such as a welded or riveted plate or engraving. [Reference: Permit APC-95/0466 Operation dated 5/15/95, Condition 5] Each flare unit and connected piping system shall be maintained in proper operating condition. [Reference: Permit APC-95/0466 Operation dated 5/15/95, Condition 8] Each flare unit shall be equipped with a flame arrester to prevent flashback to the landfill. [Reference: Permit APC-95/0466 Operation dated 5/15/95, Condition 9] Each flare unit relocation shall be for a period of time not to exceed 180 days unless another time period is submitted to and approved by the Department. Any request to extend that time period shall be submitted to the Department a minimum of 30 days prior to expiration of the 180 days. [Reference: Permit APC-95/0466- Operation dated 5/15/95, Condition 6]	In addition to the requirements of Conditions 3(b)(1)(ii) and 3(c)(2) of this permit, the Company shall maintain records of the information monitored in Condition 3 –Table 1(a)(1)(vi). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1dated 12/11/00]	3(c)(3) of this permit, compliance shall be based on monitoring, records keeping and reporting requirements of this section. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]
Tw MN	MBTU/hr @ 50% CH₄ in landfill gas (LFG).	ZULE-A ("Zink-A") and ZULE-B ("Zink-B") wit	h rated burner capacity of each flare 136.62
1. <u>Po</u>	llutants		
Ther pedu du 40	mission Standards ne flare shall be operated with no visible missions as determined by RM 22, except for eriods not to exceed a total of five (5) minutes uring any two (2) consecutive hours. [Reference: O CFR Part 60.18(c)(1) dated 1/21/86] mission Limitations r contaminant emission limitations from the	v. Compliance Methods Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]	x. Reporting A. In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall submit to the Department semi-annual reports of all operational exceedances that contain the value and length of time for exceedance of parameters monitored under Condition 3—

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards

combustion flares shall not exceed the following: [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08; 7 **DE Admin Code** 1130 Sections 6.1.1 dated 12/11/00]

A. Nitrogen Oxide (NO_x) Emissions

- 1. A rate of 0.025 pound per million BTU for each Low-NOx enclosed flare.
- 11.95 tons per 12-month rolling period for each Low-NOx enclosed flare, and a total of 23.9 tons per 12-month rolling period for both flares combined.

B. Carbon Monoxide (CO) Emissions

- <u>1.</u> A rate of 0.06 pound per million BTU for each flare.
- 57.4 tons per 12-month rolling period for both flares combined.

C. Particulate Matter (PM) Emissions

- 1. A rate of 2.3 pounds per hour for each flare.
- <u>2.</u> 16 tons per 12-month rolling period for both flares combined.

D. <u>Non-Methane Organic Compound (NMOC)</u> <u>Emissions</u>

0.61 tons per 12-month rolling period for both flares combined.

E. Sulfur Oxide (SO_x) Emissions

- <u>1.</u> A rate of 19.7 pounds per hour for each flare.
- 2. 77 tons per 12-month rolling period for both flares combined.

F. Hydrochloric Acid (HCI) Emissions

- <u>1.</u> A rate of 0.28 pounds per hour for each flare.
- 2. 1.11 tons per 12-month rolling period for

Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)

vi. Monitoring

The owner/operator shall monitor the following: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00; 40 CFR Part 60.18(f)(2) dated 7/1/05; Permit APC-2004/0746-(NSPS)(MACT) dated 2/4/08, Conditions 4.2, 4.4, 4.5 & 4.9]

- The flare to ensure that it is operated and maintained in conformance with its design.
- B. The presence of a flare pilot flame by using a thermocouple or any other equivalent device to detect the presence of a flame.
- C. The flare flame monitoring equipment shall be inspected monthly.
- D. The flow rate of landfill gas to the flare each day.
- E. The operational standards and limitations of Condition 3–Table 1(b)(1)(iii) & (iv).
- F. Compliance with the opacity requirements of Condition 3-Table 1(b)(1)(i) shall be determined once per quarter using RM 22 while flares are in operation from 40 CFR 60, Appendix A, dated 7/1/05. If visual emissions are determined to be in excess of the limitation in Condition 3-Table 1(b)(1)(i), the Company shall take all means necessary to minimize emissions and to operate the flare without visible emissions.
- G. While in operation, a flow meter shall be used to continuously monitor and record the gas flow rate to the flare. The owner/operator shall follow all

Reporting and Compliance Certification

- Table 1(b)(1)(vi). [Reference: 40 CFR Part 60.757(f) dated 7/1/05, 40 CFR Part 63.1980 dated 1/16/03 and Permit APC-2004/0746-Operation (NSPS)(MACT), Condition 6]
- B. The owner/operator shall report actions within 2 working days, followed by a letter within 7 working days, following actions that are not consistent with the startup, shutdown, or malfunction plan. [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08, Condition 6.4]

xi. Compliance Certification In addition to that required by Condition 3(c)(3) of this permit, the owner/operator shall:

- A. Use RM22 of Appendix A 40 CFR Part 60 to determine compliance with the visible emissions provision of Condition 3–Table 1(b)(1)(i). [Reference: 40 CFR Part 60.18(f)(1) dated 7/1/05]
- B. Calculate the net heating value of the gas being combusted in the flare using the method specified in 40 CFR Part 60.18(f)(3). [Reference: 40 CFR Part 60.18(f)(3) dated 7/1/05]
- C. Demonstrate compliance with the emission limitations of Condition 3 Table 1(b)(1)(ii) each month based on the amount of gas combusted, actual NMOC, H₂S, and methane concentrations, approved emission factors and good engineering assumptions. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00; Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08,

dated 2/4/08, Condition 3.3]

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<u>Condition 3 – Table 1: Specific Requirements (continued)</u>		
Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
 both flares combined. iii. Operational Standards A. The flares shall be operated with a flame present at all times and shall be operated at all times when collected landfill gas is routed to the system. [Reference: 40 CFR Part 60.18(c)(2) dated 1/21/86 and Permit APC-2004/0746-Operation (NSPS)(MACT), Condition 3.2.4] B. The flare flame detection device shall be in proper operation whenever the flare is in operation. [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT), Condition 3.2.5] C. The owner/operator shall adhere to the flare gas heat content specifications in 40 CFR 60, Subpart A, §60.18(c)(3)(ii) and the flare exit velocity specifications in §60.18(c)(4) dated 7/1/05. D. Landfill gas flow shall be diverted to the flare system for combustion within one (1) hour of gas compression plant shutdown during normal operating hours and within four (4) hours outside of normal operating hours. Normal operating hours shall mean Monday through Friday, 0700 hours until 1500 hours, excluding holidays and weather-related landfill closings. [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08, Condition 3.4] E. The flares shall be operated according to the latest startup, shutdown, and malfunction plan (SSMP) during all periods of startup, shutdown, and malfunction. [Reference: 40 CFR 63, Subpart A, §63.6(e)(3), dated 7/1/05 and Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08 and Permit APC-2004/0746-Operation (NSPS)(MACT) 	applicable requirements for the landfill outlined by 40 CFR Part §60.756-Monitoring of operations and 40 CFR Part 60.18(c)-General control device requirements (for flares). vii. Testing A. The performance of the flow monitor shall be demonstrated at least once each year by passing the tests given in 40 CFR 60 Appendix B, Performance Specification 6 except for calibration drift. [Reference: Permit APC-2004/0746-(NSPS)(MACT)) dated 2/4/08, Condition 4.6.1] B. The owner/operator shall notify the Department at least thirty (30) days prior to any flow monitor test to give the Department the opportunity to witness the test. [Reference: Permit APC-2004/0746- (NSPS)(MACT)) dated 2/4/08, Condition 4.6.2] C. DSWA may use GEM testing and lab sample analysis results to perform calculations referred by Condition 3-Table 1(b)(iii)(C) quarterly basis. The Company shall perform calculations once per calendar year as identified by federal regulation 40 CFR 60, Subpart A, §60.18(f)(3). [Reference: 40 CFR Part 60.18(f)(3)] dated 7/105 and Permit APC-2004/0746- (NSPS)(MACT), Condition 4.7] viii. Quality Assurance/Quality Control None.	Condition 4.9]] D. Calculate emissions from the flares as identified by Condition 3-Table 1(b)(ix)(F) by the end of each month for the previous month. [Reference: 7 DE Admin Code 1130 Sections6.1.3.2.3 & 6.2.1 dated 12/11/00 and Permit APC-2004/0746-(NSPS)(MACT) dated 2/4/08, Condition 5.3]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
 F. All structural and mechanical components of the flare and gas collection and treatment system shall be maintained in proper operating condition. [Reference: Permit APC-2004/0746-Operation (NSPS)(MACT) dated 2/4/08, Condition 3.5] G. The flare shall have an NMOC destruction efficiency of at least 98%. [Reference: 40 CFR Part 60.752(b) dated 7/1/05] 	ix. Record Keeping In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the owner/operator shall keep and maintain the following records. Any written log shall be initialed. The log shall include details addressing any deficiencies noted and the corrective action(s) taken: [Reference: 40 CFR Part 60.758(c)(4) dated 7/1/05 and Permit APC-2004/0746- (NSPS)(MACT) dated 2/4/08,	
 iv. Operational Limitations [Reference: Permit APC-2004/0746- (NSPS)(MACT) dated 2/4/08, Conditions 3.1, 3.2.8, 3.2.1, 3.2.2 & 3.2.3; 7 DE Admin Code 1130 Sections 6.1.1 dated 12/11/00] A. The flares shall be operated in conjunction with the gas collection system to control odors as its top priority. B. The total amount of landfill gas burned through ZULE-A and ZULE-B shall be no more than 3,780 MMscf (million standard cubic foot) per 12-month rolling period. C. The maximum flow to the each flare shall be no more than 4,500 scfm (standard cubic foot per minute). D. The flare shall be operated as per the manufacturer's recommendation. Flare operating parameters shall include but are not limited to flare flow rate, flame temperature and residence time. 	A. Periods of operation for each flare. B. Reason flare is not in operation. C. Daily, monthly and 12-month rolling usage of landfill gas to each flare. D. RM 22 records. E. Inspection and maintenance records of flares including flame and pilot flame monitoring. F. The monthly and rolling twelve (12) month total emissions shall be calculated by using landfill gas flow rate to each flare, hours of flare operation, site specific data, stack test results and AP-42 factors as appropriate, and recorded each month in a log for each of the following pollutants: 1. Nitrogen oxides; 2. Carbon monoxide; 3. Particulates Matter; 4. Non-methane organic compounds; 5. Sulfur oxides; and 6. Hydrochloric acid G. The Company shall keep copies of the following:	

Contaction of Table 21 Opening Requirements (contaction)			
Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification	
	 2. Inspections of flare monitoring equipment; 3. Flare velocity and landfill gas BTU content data; 4. A statement of qualifications of personnel performing RM 22. 5. Calibration records for all flow meters; 6. Landfill gas test information, including test protocol, raw data and final report; and 7. All parts of the startup, shutdown and malfunction plan, including: The occurrence and duration of each startup, shutdown, or malfunction of operation. The occurrence and duration of each malfunction of the air pollution control and monitoring equipment. All required maintenance performed on the air pollution control and monitoring equipment. Actions taken during period of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the startup, shutdown, and 		

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Condition 3 – Table 1: Specific Requirements (continued)			
	mission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
		malfunction plan. • All information necessary to demonstrate compliance with the startup, shutdown, and malfunction plan when actions are consistent with the plan.	
C.	c. Emission Unit Landfill Gas Collection and Control System (This may include but is not limited to vertical LFG extraction wells, horizontal LFG collection trenches, header pipes including newly constructed 18" and 24" headers, various wellhead components, LFG condensate handling system, surface collectors. Flares are addressed by Emission Units 2 and 3 on Pages 18-23.)		
1.	<u>Standards</u>		
i.	Emission Standards None.	v. <u>Compliance Methods</u> Compliance with the standards and	x. <u>Reporting</u> In addition to the requirements of Conditions

ii. <u>Emission Limitations</u> None.

iii. Operational Standards

- A. Operate the collection system such that gas is collected from each area, cell, or group of cells in the landfill in which the solid waste has been in place for a period of:
 - 1. 5 years or more if active; or
 - 2 2 years or more if closed or at final grade. [Reference: 40 CFR 60.753(a), 7/1/01 edition]
- B. Operate the collection system to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment. [Reference: 40 CFR 60.752(b)(2)(ii)(A), 7/1/01 edition]
- C. Operate the system such that all collected gases are vented to the gas treatment plant that processes the collected gas for

Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]

vi. Monitoring

The owner/operator shall:

- A. Measure gauge pressure in the gas collection header at each individual well, monthly. [Reference: 40 CFR Part 60.755(a)(3) & 60.756(a)(1), 7/1/01 edition]
- B. Monitor each well for temperature and nitrogen or oxygen, monthly. [Reference: 40 CFR Part 60.755(a)(5) & 60.756(a)(2), 7/1/01 edition]
- C. Monitor surface concentrations of methane along the entire perimeter of the collection area and along a serpentine pattern spaced 30 meters apart (or a site-specific established spacing) for each collection area on a

In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall submit to the Department the following reports:

A. An amended design capacity report when there is an increase in the design capacity of the landfill, whether the increase results from an increase in the area or depth of the landfill, a change in the operating procedures of the landfill, or any other means. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operating permit, or the placement of waste in additional land, or the change in operating procedures which will result in an increase in maximum design capacity, whichever occurs first. [Reference: 40 CFR Part 60.752(a)(1) & 60.757(a)(3), 7/1/01 edition]

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards subsequent sale or use and/or to permitted landfill gas flares that are designed and operated in accordance with §60.18 [Reference: 40 CFR Parts 60.753(e) and 60.752 (b)(2)(iii)(A) & (C), 7/1/01 edition)

- D. Operate the control or treatment system at all times when the collected gas is routed to the system [Reference: 40 CFR 60.753(f), 7/1/01 edition]
- E. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [Reference: 40 CFR 60.753(e), 7/1/01 edition]
- F. The provisions of this permit apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices. [Reference: 40 CFR 60.755(e), 7/1/01 edition]
- G. The owner/operator shall implement a program to monitor for cover integrity and implement cover repairs as per permit SW-06/01 dated 1/6/06 issued by the Solid and Hazardous Waste Management Branch, DNREC or as the permit is modified or renewed in future.
- H. Wellhead pressure standards
 - 1. Operate the collection system with negative pressure at each wellhead except under condition the following conditions:

 [Reference: 40 CFR Part 60.753(b), 7/1/01 edition]

Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)

- quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 60.755(d). [Reference: 40 CFR Part 60.753(d) & 60.755(c)(1), 7/1/01 edition]
- Monitoring shall also be performed where visual observations, such as distressed vegetation and cracks or seeps in the cover, indicate elevated concentrations of landfill gas.
- Areas with steep or otherwise dangerous areas may be excluded from the surface testing.
- 3. All penetrations from the landfill.
- D. Determine the background concentration by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. [Reference: 40 CFR Part 60.755(c)(2), 7/1/01 edition]
- E. Develop a surface monitoring plan for methane that includes: [Reference: 40 CFR Part 60.753(d), 7/1/01 edition]
 - A topographical map with the monitoring route identified and spaced at 30 meter intervals.
 - The rational for any site-specific deviations from the 30 meter intervals.
 - 3 All penetrations from the landfill.
- F. Implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [Reference: 40 CFR Part 60.755(c)(5),

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- B. MACT requirement: The owner/operator shall submit to the Department compliance reports every 6 months (semi-annually) as specified in 40 CFR Parts 63.1980(a) and (b), and Condition 3-Table 1(c)(4)(x) including information on all deviations as defined in 40 CFR Part 63.1990 that occurred during the 6-month reporting period. The semi-annual reports are due by February 1 and August 1 of each calendar year. [Reference: 40 CFR Parts 63.1980(a) & (b), 7/1/01 edition]
- C. In addition to the information outlined in MACT requirement of this section, the owner/operator shall submit to the Department semi-annual reports of the recorded information in (1) through (6) below:
 - [Reference: 40 CFR Part 60. 757(f), 7/1/01 edition and 40 CFR Part 63.1980 dated 1/16/03]
 - Value and length of time for exceedance of applicable parameters monitored under Condition 3-Table 1(c)(1)(vi) and (c)(2)(vi).
 - Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow.
 - Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.
 - <u>4</u>. All periods when the collection system

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards A fire or increased well temperature. Use of geomembrane or synthetic cover, in which case the operator shall develop acceptable pressure limits in the design plan.

- A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Department.
- 2. If a positive pressure exists, action shall be initiated by the Company to correct the exceedance within 5 calendar days, except for the three conditions allowed under paragraph H(1) above. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. [Reference: 40 CFR Part 60.755(a)(3) and §60.753(b), 7/1/01 edition]
- I. Temperature and wellhead Gas standards
 - 1. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Company may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value

Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)

7/1/01 edition1

G. Monitor training records for all personnel performing landfill gas monitoring and update records as needed. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]

vii. Testing

In addition to that required by Condition 3(b)(1)(ii) of this permit, the owner/operator shall:

[40 CFR Part 60, dated 7/1/97, 7 **DE Admin Code** 1120, Section 28, dated 4/11/98] [Sections A through E below address surface emissions monitoring equipment]

- A. Perform surface emission monitoring in accordance with section 'individual source survey' of Method 21 of 40 CFR Part 60, Appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions. [Reference: 40 CFR Part 60.755(c)(3), 7/1/01 edition]
- B. The portable analyzer shall meet the instrument specifications provided in section 'apparatus' of Method 21 of 40 CFR Part 60, Appendix A, except that "methane" shall replace all references to VOC. [Reference: 40 CFR Part 60.755(d)(1), 7/1/01 edition]
- C. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air. [Reference: 40 CFR Part 60.755(d)(2)], 7/1/01 edition]

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- was not operating in excess of 5 days.

 5. The location of each exceedance of the 500 parts per million methane concentration and the concentration recorded at each location for which an exceedance was recorded in the previous quarter.
- 6. The date of installation and the location of each well or collection system expansion added along with new plot maps that indicate the locations of all new equipment.
- D. The owner/operator shall submit an NMOC emission rate report to the Department annually, except as provided for in paragraph (3) below. The Department may request such additional information as may be necessary to verify the reported NMOC emission rate. [Reference: 40 CFR 60.757(b), 7/1/01 edition and 7 DE Admin Code 1120, Section 28(a) dated 4/11/98]
 - The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.754 (a) or (b), as applicable.
 - The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.
 - The Company subject to the requirements of this subpart is exempted from the requirements of paragraphs <u>1</u> and <u>2</u> of this section,

per million above background at the surface of

exceeded, the owner or operator shall conduct

the landfill. To determine if this level is

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Compliance Determination Methodology Operational Limitations, and Operational (Monitoring, Testing, QA/QC **Reporting and Compliance Certification Standards Procedures, and Record Keeping)** demonstration shall show supporting data D. Follow 'performance evaluation after the installation of a collection that the elevated parameter does not cause requirements' and 'instrument and control system in compliance with fires or significantly inhibit anaerobic evaluation procedures' of Method 21 of Condition 3-Table 1(a), (c), (d) and decomposition by killing methanogens. 40 CFR Part 60, Appendix A. (e), during such time as the collection [Reference: 40 CFR Part 60.753(c), 7/1/01 [Reference: 40 CFR Part 60.755(d)(3), and control system is in operation and edition1 7/1/01 edition] in compliance with Condition 3 -Table Approval of gas wellhead operating E. The calibration procedures provided in 1(a), (c), (d), and (e). [Reference: 40] temperature increase will be evaluated case-Method 21 of Appendix A shall be CFR 60.757(b)(3), 7/1/01 edition] by-case basis. followed immediately before E. The owner or operator shall submit the 2. If a well exceeds one of the operating commencing a surface monitoring quarterly H₂S concentration in LFG parameters specified in Condition 3-Table 1 survey. [Reference: 40 CFR Part analysis results identified by Condition (c)(iii)(I)(1), action shall be initiated to 60.755(d)(4), 7/1/01 edition] 3-Table 1(c)(1)(vii)(I) by the end of correct the exceedance within 5 calendar F. The nitrogen level shall be determined each guarter for the previous guarter. using Method 3C of 40 CFR Part 60, days. If correction of the exceedance Appendix A. [Reference: 40 CFR Part xi. Compliance Certification cannot be achieved within 15 calendar days 60.753(c)(1), 7/1/01 edition] In addition to that required by Condition of the first measurement, the gas collection G. The oxygen level shall be determined by 3(c)(3) of this permit, the Company shall: system shall be expanded to correct the an oxygen meter using Method 3A of 40 A. For the purposes of calculating the exceedance within 120 days of the initial CFR Part 60, Appendix A except that: maximum expected gas generation flow exceedance. [Reference: 40 CFR Part [Reference: 40 CFR Part 60.753(c)(2), rate from the landfill to determine 60.755(a)(5), 7/1/01 edition] 7/1/01 edition] 3. Any attempted corrective measure shall not compliance with Condition 3- Table The span shall be set so that the cause exceedances of other operational or 1(c)(1)(iii)(B), the appropriate equation regulatory limit is between 20 and from 40 CFR Part 60.755(a)(1) shall be performance standards. [Reference: 40 CFR] 50 percent of the span. Part 60.755(a)(5), 7/1/01 edition] used. The k and Lo kinetic factors A data recorder is not required. 4. If corrective actions are taken as specified should be those published in the most Only two calibration gases are in paragraph(B) above, the monitored recent Compilation of Air Pollutant required, a zero and a span, and exceedance is not a violation of the Emission Factors (AP-42) or other site ambient air may be used as the operational requirements in this section. specific values demonstrated to be [Reference: 40 CFR Part 60.753(q), 7/1/01 span. appropriate and approved by the 4. A calibration error check is not edition1 Department. If k has been determined required. J. Methane Standard as specified in 60.754(a)(4), the value Operate the collection system so that the 5. The allowable sample bias, zero of k determined from the test shall be methane concentration is less than 500 parts drift, and calibration drift are used. A value of no more than 15 years

plus/minus 10 percent.

calculated using the appropriate

H. The NMOC emission rate shall be

shall be used for the intended use

period of the gas mover equipment.

The active life of the landfill is the age

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards

surface testing around the perimeter of the collection area along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. [Reference: 40 CFR Part 60.753(d), 7/1/01 edition]

iV. Operational Limitations

All landfill gas monitoring shall be performed by trained personnel. [Reference: 7 DE Admin Code 1130 Sections 6.1.1 & 6.2.1 dated 12/11/00]

Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)

- equation provided in 40 CFR Part 60.754(a). [Reference: 40 CFR Part 60.754(a)], 7/1/01 edition]
- I. Each month, the owner or operator shall sample the landfill gas using Department approved test methods to determine methane and H₂S content. A dräger tube (or equivalent) test can be accepted for monthly determination of H₂S in landfill gas along with a quarterly test by ASTM D5504. The owner or operator shall take measure to complete a quarterly test, and provide time for a repeat test within that quarter, if necessary. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]
- J. Each quarter, the owner or operator shall sample the landfill gas using Department approved test methods to determine NMOC content. EPA Method 25c can be used as the Department approved test method. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]
- viii. Quality Assurance/Quality Control
 Training shall include but not be limited to such things as sampling methods, instrument calibration, instrument response time, instrument response factors, and calibration gases. [Reference: 7 DE Admin Code 1130 Sections 6.1 & 6.2.1) dated 12/11/00]
- ix. Record Keeping
 In addition to the requirements of Conditions

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- of the landfill plus the estimated number of years until closure. [Reference: 40 CFR Part 60.755(a)(1)), 7/1/01 edition]
- B. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Condition 3–Table 1(c)(1)(iii)(I). [Reference: 40 CFR Part 60.755(a)(3), 7/1/01 edition]
- C. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measurement shall not cause exceedances of other operational or performance standards. [Reference: 40 CFR Part 60.755(a)(3)), 7/1/01 edition]
- D. Installation of additional wells is not required during the first 180 days after gas collection system start-up. [Reference: 40 CFR Part 60.755(a)(4), 7/1/01 edition]
- E. If a well exceeds one of the operating parameters of Condition 3–Table 1(c)(1)(iii)(I), action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. [Reference: 40 CFR Part 60.758(a), 7/1/01 edition] B. Keep readily accessible records for the life of the control equipment of the data listed in the following as measured during the initial performance test or compliance determination. [Reference: 40 CFR Part 60.758(b), 7/1/01 edition] 1 The maximum expected gas generation flow rate as calculated in §60.755(a)(1). 2 The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR Part §60.759(a)(1). 3 The flare type (i.e., steam assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §60.18; continuous records of the flare pilot flame or	exceedance within 120 days of the initial exceedance. Any attempted corrective measurement shall not cause exceedances of other operational or performance standards. [Reference: 40 CFR Part 60.755(a)(5), 7/1/01 edition] F. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the following actions shall be taken. As long as the following specified actions are taken, the exceedance is not a violation of the operational requirements. [Reference: 40 CFR Part 60.755(c)(4)), 7/1/01 edition] 1 The location of each monitored exceedance shall be marked and the location recorded. 2 Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be remonitored within 10 calendar days of detecting the exceedance. 3 If the re-monitoring of the location shows a second exceedance, additional corrective action shall be monitored again within 10 days of the second exceedance. If the remonitoring shows a third exceedance for the same location, the action specified in Condition 3 — Table 1(c)(1)(xi)(F)(5) shall be taken, and no further monitoring of

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent. C. Keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Conditions 3 –Table 1(c)(1)(iii) & (vi) as well as upto-date, readily accessible records for periods of during which the parameter boundaries established during the most recent performance test are exceeded. [Reference: 40 CFR Part 60.758(c)(1), 7/1/01 edition] D. Keep up-to-date, readily accessible continuous records of the indication of flow to the control device or indication of bypass flow. [Reference: 40 CFR Part 60.758(c)(2), 7/1/01 edition] E. Records of subsequent tests or monitoring including monitoring of H ₂ S concentration in landfill gas shall be maintained for a minimum of 5 years. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00] F. Records of the control device vendor specifications shall be maintained until removal. [Reference: 40 CFR Part 60.758(b), 7/1/01 edition] G. Keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and provide a unique identification location label for each collector. [Reference: 40 CFR Part	that location is required until the action specified in Condition 3 – Table 1(c)(1)(xi)(F)(5) has been taken. 4 Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring shall be remonitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in Condition 3 – Table 1(c)(1)(xi)(F)(3) or (5) shall be taken. 5 For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Department for approval. G. Compliance with all standards and

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	60.758(d), 7/1/01 edition] H. Keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors. [Reference: 40 CFR Part 60.758(d)(1), 7/1/01 edition]	limitations of Condition 3 – Table 1(c)(1)(iii) and (iv) shall be based upon record keeping. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00]
	I. Keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestoscontaining or nondegradable waste excluded from collection as well as any nonproductive areas excluded from collection. [Reference: 40 CFR Part	
	 60.758(d)(2), 7/1/01 edition] J. Keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards, the reading in the subsequent month whether or not the 	
	second reading is an exceedance, the location of each exceedance and any corrective actions taken on monitored exceedances. [Reference: 40 CFR Part 60.758(e), 7/1/01 edition] K. Record instances when positive pressure	
	occurs in efforts to avoid a fire. These records shall be submitted with the annual reports. [Reference: 40 CFR Part 60.753(b)(1), 7/1/01 edition] L. The operational standards and limitations monitored in accordance with	
	Conditions monitored in accordance with Conditions 3–Table 1(c)(1)(iii) & (iv). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	(Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
2. Well Decommissioning		
ii. Emission Standards None. iii. Operational Standards None. iii. Operational Limitations [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00] A. The wellhead valve(s) shall be closed. B. The remaining gas collection system shall be rebalanced and checked during the remainder of the current month and the following two months after valve closure to allow the collection system to adapt without the contribution of the decommissioned well(s). C. After DNREC review of data and upon written approval from the Department for final abandonment, remove wellhead(s), cut and cap the vacuum line and gas well casing a minimum of three (3) feet below ground, backfill with soil as appropriate, and repair cap. The initial approval for well decommissioning from the Division of Air Quality does not preclude any requirements by the Department's Solid and Hazardous Waste Management Branch (SHWMB).	 v. Compliance Methods Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00] vi. Monitoring [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00] A. The owner/operator shall monitor the average weekly flow rate of landfill gas collected at the flare/gas station for three (3) months after the well(s) decommissioning and compare with the three (3) months prior to well(s) decommissioning to determine if gas collection has increased, decreased or remained constant as a result of the decommissioning of the extraction points. B. The Company shall conduct monthly surface monitoring in the vicinity of the decommissioned well(s) for three (3) consecutive months after initial well decommissioning to determine if additional wells are needed to control fugitive gas emissions or if the decommissioned well(s) need to be returned to service. 	x. Reporting In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall: [Reference: 7 DE Admin Code 1130 Sections6.1.3.2.3 & 6.2.1 dated 12/11/00] A. Provide the Department with written notification at least 15 days prior to beginning well decommissioning that includes the following: 1. The reason for well decommissioning. 2. A plot map that clearly identifies all nearby active wells and the wells to be decommissioned. 3. Estimated approximate radius of influence (ROI) of the well to be decommissioned and the ROIs of the nearby active wells or LFG collection trenches. 4. Documentation that demonstrates that the wells have been unproductive. B. Provide a summary report of the results and details of the plans to abandon the decommissioned well(s) to the Department for approval prior to formal abandonment. C. Provide a summary report of landfill gas flow rate and surface emissions monitoring outlined by Condition 3-Table 1(c)(2)(vi)(A)&(B).

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	perational Limitations, and Operational (Monitoring, Testing, QA/QC	
	 vii. <u>Testing</u> That required by Condition 3(b)(1)(ii) of this permit. viii. <u>Quality Assurance/Quality Control</u> None. 	xi. Compliance Certification In addition to that required by Condition 3(c)(3) of this permit, compliance shall be demonstrated by record keeping and reporting. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00]
	ix. Record Keeping In addition to the requirements of Condition 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall maintain records of the monitoring required by Condition 3— Table 1(c)(2)(vi). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1dated 12/11/00]	
3. Closure and Equipment Removal		
 i. Emission Standards None. ii. Emission Limitations None. iii. Operational Standards A. The collection and control system may be capped or removed provided that all the following conditions are met: [Reference: 40 CFR Part 60.752(b)(2)(v), 7/1/01 edition] 1. The landfill shall be no longer accepting solid waste and be permanently closed; 	 v. Compliance Methods Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00] vi. Monitoring The company shall monitor the operational standards of Condition 3—Table 1(c)(3)(iii). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00] 	 x. Reporting In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall: A. Submit a closure report to the Department within 30 days of waste acceptance cessation. The Department may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of Section 258.60 of 40 CFR Part 60. [Reference: 40 CFR Part 60.757(d), 7/1/01 edition]
 2. The collection and control system shall have been in a minimum of 15 years; and 3. The calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive 	vii. Testing In addition to that required by Condition 3(b)(1)(ii) of this permit, the owner/operator shall calculate the NMOC emission rate using the equation provided in	B. Submit an equipment removal report to the Department 30 days prior to removal or cessation of the control equipment that includes the following: [Reference: 40 CFR Part 60.757(e), 7/1/01 edition] 1. A copy of the closure report submitted in

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	mission Limitations, Emission Standards, perational Limitations, and Operational Standards	tional Limitations, and Operational (Monitoring, Testing, QA/QC Standards Procedures, and Record Keeping)	
iv.	test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart. B. If a closure report has been submitted to the Department, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR Part 60.7(a)(4) provided that none of the conditions of this permit are violated. [Reference: 40 CFR Part 60.757(d), 7/1/01 edition] C. Any closed landfill that has no monitored exceedances in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane readings of 500 parts per million or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [Reference: 40 CFR Part 60.756(f), 7/1/01 edition] Operational Limitations None.	40 CFR Part 60.754(b). [Reference: 40 CFR Part 60.754(b)], 7/1/01 edition] viii. Quality Assurance/Quality Control None. ix. Record Keeping In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall keep records of the monitoring required by Condition 3–Table 1(c)(3)(vi). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 2/11/00]	accordance with Condition 3–Table 1(c)(3)(x)(A); 2. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired, and 3. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year. xi. Compliance Certification In addition to that required by Condition 3(c)(3) of this permit, compliance with the operational standards shall be based upon record keeping. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00]
4.	MACT Requirements		
i. ii.	Emission Standards None. Emission Limitations None.	v. Compliance Methods Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping	x. Reporting In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall submit to the Department the following
iii.	Operational Standards Startup, Shutdown and Malfunction plan The owner/operator shall develop and implement a written startup, shutdown and malfunction plan (SSM) that describes, in detail, procedures for	requirements. [Reference 7 DE Admin Code 1130 Section 6.3 dated 12/11/00] vi. Monitoring In addition to the requirements of all	reports: [Reference: 40 CFR Part 63.10(d)(5), 7/1/01] A. A SSM report shall be submitted semiannually. B. If actions taken during a SSM are consistent with the procedures specified

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Standards Procedures, and Record Keeping) operating and maintaining the collection and monitoring conditions specified under in the SSM Plan, the owner or ope	<u>condition 5 Table 1: Specific Regulierierits (continued)</u>					
	Operational Limitations, and Operational	Reporting and Compliance Certification				
monitor the time, date, and length of all SSM and a program of corrective action for malfunctioning process and air pollution control equipment according to the provisions of 40 CFR Part 63.56(e)(3). [Reference: 40 CFR Part 63.1960, 71/6/03 edition] iv. Operational Limitations None. Vii. Testing None	control system and the continuous monitoring system during periods of SSM and a program of corrective action for malfunctioning process and air pollution control equipment according to the provisions of 40 CFR Part 63.6(e)(3). [Reference: 40 CFR Part 63.1960, 1/16/03 edition] Operational Limitations	 C. The SSM report shall consist of a letter, containing the name, title, and signature of the responsible official certifying to it accuracy. D. SSM reports shall be delivered or postmarked by the 30th day following the end of each calendar half. E. Anytime an action taken by an owner/operator during a SSM is not consistent with the procedures specified in the SSM plan, the owner/operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event 1 The immediate report shall consist of a telephone call or facsimile transmission within 2 working days after commencing actions. 2 The letter shall contain the name, title and signature of the responsible official certifying its accuracy, explaining the circumstances of the event, the reasons for not following the SSM plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. 				

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Condition 5 Table 1. Specific Requirements (continued)					
Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Operational Limitations, and Operational (Monitoring, Testing, QA/QC				
	 manner of operation) when such actions are different from the procedures specified in the SSM Plan. F. Maintain all information necessary to demonstrate conformance with the affected source's SSM Plan when all actions taken during periods of SSM are consistent with the procedures specified in such plan. G. Record each period during which a CMS is malfunctioning or inoperative. 	3(c)(3) of this permit, compliance with the operational standards shall be based upon record keeping and reporting requirements outlined above. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00]			
d. Emission Unit No. 5					
Gas Treatment Plant ("Gas Compressor Plant"	or "Gas Plant")				
1. Standards					
 i. Emission Standards The gas plant shall not be a source of emissions. [Reference: 7 DE Admin Code 1130 Section 6.1.1 dated 12/11/00] ii. Emission Limitations 	v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code]	x. Reporting A. Any changes to the operational manual shall be submitted to the Department within one (1) month. [Reference: 7 DE Admin Code 1130 Section 6.1.3 dated 12/11/00]			
iii. <u>Operational Standards</u> None	vi. Monitoring The owner/operator shall monitor operational	B. In addition to Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall submit to the Department annual reports of the			
iv. Operational Limitations A. Route all the collected gas to: 1. the gas compression plant that processes the collected gas for subsequent sale or , use; or 2. permitted flare(s) designed and operated in accordance with §60.18(c). [Reference: 40]	limitations of this section. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00] vii. Testing None viii. Quality Assurance/Quality Control	following information: 1. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR Part 60.756. [Reference: 40 CFR Part 60.757(f)(2), 7/1/01 edition] 2. Description and duration of all periods			
CFR Parts 60.752(b)(2)(iii)(A)&(C), 7/1/01 edition] B. The gas plant shall: 1 be operated at all times when the collected	None.	when the control device was not operating for a period exceeding 1 hour during normal operating hour and 4			

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification			
gas is routed to the system. [Reference: 40 CFR Part 60.753(f), 7/1/01 edition] 2 be maintained and operated in a manner consistent with the specifications in the operation manual. Any changes to the manuals shall be submitted to the Department. [Reference: Permit APC-90/0133-Operation (Amendment 2) dated 9/26/97, Condition 9] C. DSWA shall upgrade the landfill gas collection system, including gas lines, process skid, and compressor so it is capable of processing and transmitting processed landfill gas flow rate exceeds a daily average of 8,000 scfm for two (2) consecutive months, DSWA shall upgrade the system so it is capable of processing and transmitting processed landfill gas at the rate of 12,000 scfm. In any event, all landfill gas collected at the landfill either shall be processed by the gas compressor system or burned at a flare or flares. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00 and Permit 2004/0710-Operation (NSPS)(MACT) dated 9/28/05, Condition 3.1.3]	ix. Record Keeping A. The owner/operator shall maintain all records specified under Condition 3- Table 1(d)(1)(vi) including the following information: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00] 1. The date and time the gas plant was shut down; 2. The date and time the gas flow was restored to the plant. 3. The date and time the flare was fired; and B. Records of the control device vendor specifications shall be maintained until removal. [Reference 40 CFR Part 60.758(b), 7/1/01 edition] C. The daily exit gas flow rate from gas plant as specified in Condition 3-Table 1 (d)(1)(iv)(A).	hours outside normal operating hour, and length of time the control device was not operating. [Reference: 40 CFR Part 60.757(f)(3), 7/1/01 edition] xi. Compliance Certification In addition to that required by Condition 3(c)(3) of this permit, compliance will be determined based on records keeping and reporting requirements of this section. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]			
e. Emission Unit No 6					
Insignificant Activities: 55 KW Diesel Fired Em 1. Criteria Pollutants	nergency Generator				
1. Criteria Poliutarits					
i. <u>Emission Standards</u> The generator shall be operated in conformance with the generator manufacturer's instructions, such as following maintenance and operating requirements to help minimize emissions. [Reference: 7 DE Admin Code 1144 Section 3.1.1	v. Compliance Methods Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code]	x. Reporting A. In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, if the emergency generator is to be reclassified from an emergency generator to a distributed			

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	<u>condition 3 – Table 1: Specific Requirements (continued)</u>					
	compliance Determination Methodology (Monitoring, Testing, QA/QC Standards Procedures, and Record Keeping)		Reporting and Compliance Certification			
ii.	• • •	vi. Monitoring A. The Company shall monitor, for each operating period: [Reference: 7 DE Admin Code 1130 Sections 6(a)(3)(i)(B) and6.2.1dated 12/11/00] 1. The type of fuel used to fire this Emission Unit. 2. The monthly amount of fuel combusted. 3. The sulfur content of the fuel oil for each shipment. 4. The date, time, duration, and reason for each startup. [Reference: 7 DE Admin Code 1144 Section 6.1.3 dated 1/11/2006] B. The hours and minutes of operation. [Reference: 7 DE Admin Code 1144 Section 6.1.2 dated 1/11/06] vii. Testing That required by Condition 3(b)(1)(ii) of this permit. viii. Quality Assurance/Quality Control None. ix. Record Keeping In addition to the requirements of Condition 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall maintain records of the following information: [Reference: 7 DE	generator, the owner or operator shall submit a letter stating that the generator is to be reclassified. Reclassification shall not occur without written permission from the Department. [Reference: 7 DE Admin Code 1144 Section 1.3.3 dated 1/11/2006] B. The Company shall calculate the emissions from emergency generator and include this information to yearly emissions inventory report. [Reference: 7 DE Admin Code 1130 Section 6.1.1 & 6.2.1 dated 12/11/00] xi. Compliance Certification In addition to that required by Condition 3(c)(3) of this permit, compliance with the operational standards shall be based upon record keeping and reporting requirements outlined above. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6(b)(1) dated 12/11/00]			
	the premises of three percent (3%) or greater above, or five Percent (5%) or greater below, standard voltage or frequency.	Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00] A. The monitoring required in Condition 3 — Table 1(e)(1)(vi). B. For each shipment of fuel, shipping				

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	sion Limitations, Emission Standards, rational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
D.	No emergency generator shall be used during testing or for maintenance purposes before 5 p.m. on a day which has a Ground Level Ozone Pollution Forecast or Particle Pollution Forecast of "Code Red" or "Code Orange" as announced by the Department. [Reference: 7 DE Admin Code 1144 Section 4.4 dated 1/11/06]	receipt and fuel supplier certifications fuel sulfur content that state: [Reference: 7 DE Admin Code 1144 Section 6.1.4 dated 1/11/06] 1. The type of fuel delivered. 2. The percentage of sulfur in the fand the method used to determ	uel
E.	Despite Condition 3–Table 1(e)(1)(iii)(D), an emergency generator may be tested on any day that such testing is required to meet National Fire Protection Association (NFPA) standards. [Reference: 7 DE Admin Code 1144 Section 4.5 dated 1/11/06]	the sulfur content. C. As an alternative to Condition 3–Table 1(e)(1)(ix)(B), the owner may have a the fuel in the generator's fuel tank certified by a third party laboratory, after each shipment of liquid fuel. Th	
F.	The emergency generator shall only combust diesel fuel or biodiesel blend having a sulfur content equal to or less than 0.05% by weight. [Reference: 7 DE Admin Code 1144 Section 5.1 dated 1/11/06]	certification shall identify: [Reference: DE Admin Code 1144 Section 6.1.5 dates 1/11/06] 1. The type of fuel delivered. 2. The percentage of sulfur in the fu	7
G.	The emergency generator shall be equipped with a properly functioning non-resettable hour metering device. [Reference: 7 DE Admin Code 1144 Section 6.1.1 dated 1/11/06]	and the method used to determine the sulfur content. D. A copy of the initial notification as required by 7 DE Admin Code 1144.	
н.	The emergency generator shall not be operated in conjunction with a voluntary demand reduction program or any other interruptible power supply arrangement with a utility, other market participant, or system operator (e.g. Delmarva Power, Delaware Electric Cooperative, PJM, etc.). [Reference: 7]	[Reference: 7 DE Admin Code 1144 Section 1.4 dated 1/11/06] E. A copy of the manufacturer's maintenance and operational recommendations. [Reference: 7 DE Admin Code 1144 Section 3.1.1 dated 1/11/06]	
I.	The emergency generator shall not be transferred off-site without first notifying the Department. Whoever becomes the new owner or operator of this generator within the State of Delaware shall apply for a construction permit. [7 DE Admin Code 1102]	 F. Monthly, the hours of operation on a monthly and cumulative twelve (12) month basis. [Reference: 7 DE Admin Code 1144 Section 6.1.1 dated 1/11/06] G. Monthly, the total fuel usage on a monthly and cumulative twelve (12) month basis. [Reference: 7 DE Admin 	

As outlined by the unit-specific operational

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Condition 3 – Table 1: Specific Requirements (continued)

	<u>Condition 3 – Table 1: Specific Requirements (continued)</u>					
Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards		Operational Limitations, and Operational (Monitoring, Testing, QA/QC		porting and Compliance Certification		
iv.	Section 7.1 dated 6/1/1997] Operational Limitations [Reference: 7 DE Admin Code 1130 Sections 6.1.1 & 6.2.1 dated 12/11/00] The emergency generator shall be serviced annually by a manufacturer's representative or by personnel trained to perform maintenance according to the manufacturer's recommendations.	Code 1144 Section 6.1.1 dated 1/11/06] H. A copy of the annual service performed in accordance with Condition 3—Table 1(e)(1)(iv)(A). [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]				
f.	Facility Wide					
	1. General					
i.	Emission Standards None	v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by	x.	Reporting In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2)		
ii.	Emission Limitations [Reference: 7 DE Admin Code 1130 Sections 6.1.1 & 6.2.1 dated 12/11/00]	adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code		of this permit, the owner/operator shall calculate the rolling 12-month emissions from passive flares based on actual hours of		
	The facility's rolling 12-month emission limitations are based on two low- NO_x enclosed flares and all permitted passive flares as shown below:	vi. Monitoring A. The owner/operator shall monitor the following: [Reference: 7 DE Admin Code		operations and best engineering assumptions. The owner/operator shall include the passive flare emissions to yearly emissions inventory report. [Reference: 7 DE		
	NO _x =23.9 tons CO=57.4 tons	1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]		Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]		
	PM=16 tons NMOC=0.61 tons SO _x =77 tons	Monthly and rolling 12-month emissions of NO _x , CO, PM, NMOCs, SO _x , and HCl from the facility.	xi.	Compliance Certification [Reference: 7 DE Admin Code 1130 Sections6.1.3.2.3 & 6.2.1dated 12/11/00]		
	HCl=1.11 tons	B. The owner/operator shall monitor unit- specific visible emissions as outlined by		In addition to that required by Condition 3(c)(3) of this permit,		
iii.	<u>Operational Standards</u> None.	this permit. [Reference: 7 DE Admin Code 1130 Section 6.1.3 dated 12/11/00]		A. Compliance with the emission limitations identified by the unit-specific emissions shall be demonstrated each month based		
iv.	Operational Limitations As outlined by the unit-specific operational	vii. <u>Testing</u> That required by Condition 3(b)(1)(ii) of this		on the amount of gas combusted, actual NMOC, actual H ₂ S concentrations, actual		

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	mission Limitations, Emission Standards, Operational Limitations, and Operational Standards		npliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Re	porting and Compliance Certification
	limitations by this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1dated 12/11/00]	viii.	Quality Assurance/Quality Control None. Record Keeping That required by Conditions 3(b)(1)(ii) and 3(b)(2) and Condition 3-Table 1(f)(1)(vi) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]		methane content in landfill gas , approved emission factors and good engineering assumptions. B. Any noncompliance with the restrictions of Condition 3–Table 1(f)(xi)(A) shall be evaluated in accordance with the requirements of 7 DE Admin Code 1125, Requirements for Preconstruction Review. Any emission exceedances which trigger the requirements of 7 DE Admin Code 1125 shall subject the facility to full review under this regulation as though construction had not yet commenced at the facility.
	2. State-Enforceable Only-Odors and pe	erimet	ter H₂S survey		
i.	Emission Standards Odor: The owner/operator shall not cause or allow the emission of odorous air contaminants such as to cause a condition of air pollution. [Reference: 7 DE Admin Code 1119 Section 2.1 dated 2/1/81 and Permit: APC-2004/0746-Operation(NSPS)(MACT) dated 2/4/08, Condition 2.3]	iv.	Compliance Methods Compliance with the standards and limitations will be demonstrated by adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]	x.	Reporting [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00; Permit APC- 2004/0746-Operation (NSPS)(MACT) dated 2/4/08, Condition 6; : 7 DE Admin Code 1103, Section 9 dated 2/1/81] In addition to that required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the owner/operator shall
ii.	Emission Limitations None	V.	Monitoring A. Conduct daily odor survey at the perimeter of the facility on days the		comply with the following: A. Notify the Department immediately if daily
iii.	<u>Operational Standards</u> None.		facility is operational. The daily surveys shall be conducted 6 days a week (Monday through Saturday). The owner		or other odor surveys detect odors beyond the landfill perimeter. The owner/operator shall submit an odor survey summary log
iv.	Operational Limitations None.		or operator shall resume off day monitoring if there are any verified odor complaints on any off day in any subsequent quarter. If a landfill gas odor sufficient to cause or create a condition of air pollution is detected, the	by the end of each calendar month for the previous month. The odor survey summary log shall include all information outlined by Condition 3-Table 1(f)(2)(v)(A). B. Research and explore various H₂S generation reduction strategies and	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	owner/operator shall take immediate action to correct landfill gas odor problem. The following information shall be recorded and maintained in written or electronic log. Any written log shall be initialed. 1. Start and end time of survey. 2. Presence or absence of odor. 3. Wind direction. 4. Ambient air temperature. 5. Location monitored. In the event when odor is detected along the perimeter exterior of the landfill, the odor survey log shall include the following additional information: 1. Humidity content of ambient air. 2. Average wind speed. 3. Actions taken in response to odor found. [Reference: 7 DE Admin Code 1130 Sections 6.1.1 dated 12/11/00; Permit APC-2004/0746-Operation(NSPS)(MACT) dated 2/4/08, Condition 4.10 dated 2/4/08] B. The owner/operator shall conduct perimeter H ₂ S survey (measurement) if H ₂ S concentration in LFG exceeds 450 ppm in two consecutive quarters by laboratory analysis (ASTM). The perimeter H ₂ S measurements shall be conducted within seventy two (72) hours upon receiving the laboratory results and maintain this information for the Department's reviews. [Reference: 7 DE Admin Code 1103, Section 9 dated 2/1/81]	control options and implement these strategies as necessary so that the H ₂ S concentration in the landfill gas remains consistently low and meets the Ambient Air Quality Standard (AAQS) outlined by 7 DE Admin Code 1103, Section 9 for this pollutant. The facility must submit an annual report to the Department by the end of March of each calendar year for the previous year summarizing its findings including which strategies and control options have been implemented for H ₂ S generation reduction. xi. Compliance Certification In addition to that required by Condition 3(c)(3) of this permit, compliance is demonstrated if the owner/operator has no knowledge to the contrary and has no prior history of exceedances. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification	
	 vii. <u>Testing</u> That required by Condition 3(b)(1)(ii) of this permit. viii. <u>Quality Assurance/Quality Control</u> None. 		
	ix. Record Keeping In addition to that required by Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the owner/operator shall maintain records of the following: [Reference: Permit APC-2004/0746- Operation(NSPS)(MACT) dated 2/4/08, Condition 5.2.5; 7 DE Admin Code 1103, Section 9 dated 2/1/81]] A. Odor: 1. Presence or absence of odor. 2. Wind direction and ambient air temperature. 3. Location monitored. 4. Actions taken in response to odors found. B. H ₂ S monitoring: 1. Method used for perimeter monitoring (survey). 2. Monitoring results. 3. Monitoring location.		
3. Operations/Maintenance			
i. <u>Emission Standards</u> None.	v. <u>Compliance Methods</u> Compliance with the standards and limitations will be demonstrated by	X. Reporting That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit.	
ii. <u>Emission Limitations</u> None.	adherence to the appropriate monitoring, testing, QA/QC, and recordkeeping	[Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]	

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Condition 3 – Table 1: Specific Requirements (continued)

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards

iii. Operational Standards

- A. All structural and mechanical components of the equipment covered by this permit shall be maintained in proper operating condition and such equipment shall be operated at all times in a manner consistent with good air pollution control practice. [Reference: 7 DE Admin Code 1101 Section 3 dated 2/1/81 and Permit APC-2004/0746-Operation(NSPS)(MACT) dated 2/4/08, Condition 3.57
- B. No person shall cause or allow land clearing, land grading (including grading for roads), excavation, or use of non-paved roads on private property unless methods, such as the application of water or the use of other techniques approved by the Department, are employed to control dust emission. [Reference: 7 DE Admin Code 1106 Section 3 dated 2/1/81]
- C. No person shall cause or allow visible particulate emissions of any material being transported by a motor vehicle. [Reference: 7 DE Admin Code 1106 Section 4 dated 2/1/81]
- D. No person shall cause or allow stockpiling or other storage of material or transport to or from a storage facility in such a manner as may cause a condition of air pollution. [Reference: 7 DE Admin Code 1106 Section 6 dated 2/1/81]
- iv. <u>Operational Limitations</u>
 None.

Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)

requirements. [Reference: 7 DE Admin Code 1130 Section 6.3 dated 12/11/00]

vi. Monitoring

[Reference: 7 **DE Admin Code** 1101 Section 3 dated 2/1/81 and APC-2004/0710-Opeartion (NSPS)(MACT) dated 2/4/08, Condition 3.2]

- A. Each month, the owner/operator shall monitor the operational standards specified under Condition 3–Table 1(f)(3)(iii). The Company monitor all of the maintenance performed on equipment covered by this permit, and update records as needed.
- B. Each day, the Company shall monitor the methods used to store and transport material and the methods used for control of fugitive dust from loading, unloading, clearing, grading, and excavation.

vii. Testing

That required by Condition 3(b)(1)(ii) of this permit.

viii. <u>Quality Assurance/Quality Control</u> None.

ix. Record Keeping

In addition to that required by Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall maintain records of the monitoring performed in Condition 3—Table 1(f)(3)(vi). [Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.1.2 & 6.2.1 dated 12/11/00]

Reporting and Compliance Certification

xi. Compliance Certification

In addition to that required by Condition 3(c)(3) of this permit, compliance with the operational standards shall be demonstrated by the following: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 & 6.2.1 dated 12/11/00]

- A. Compliance with the Condition 3–Table 1(f)(3)(iii)(A) shall be demonstrated by adherence to good engineering operations and work practices, and based upon record keeping for the proper operation and maintenance of the equipment covered by this permit.
- B. Compliance with the Condition 3 Table 1(f)(3)(iii)(B), (C), and (D) shall be demonstrated by record keeping.

Condition 4- Operational Flexibility

- a. In addition to the operational flexibility specifically provided in the terms and conditions detailed in Condition 3–Table 1 of this permit, the Owner and/or Operator is authorized to make any changes within the facility which contravenes the terms and conditions of this permit without a permit revision if the change:
 - 1. Is not a modification or otherwise prohibited under any provision of Title I of the Act or the State Implementation Plan (SIP); and [Reference: 7 DE Admin. Code 1130 Section 6.8 dated 12/11/00]
 - 2. Does not involve a change in any compliance schedule date; and [Reference: 7 **DE Admin. Code** 1130 Section 6.8 dated 12/11/00]
 - 3. Does not result in a level of emissions exceeding the emissions allowable under this permit, whether expressed herein as a rate of emissions or in terms of total emissions. [Reference: 7 DE Admin. Code 1130 Section 6.8 dated 12/11/00]
- b. Before making a change under the provisions of Condition 4(a) of this permit, the Owner and/or Operator shall provide advance written notice to the Department and to the EPA in accordance with Condition 3(c)(2)(iii) of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]
- c. The Owner and/or Operator shall keep records of any changes made under Condition 4 of this permit in accordance with Condition 3(b)(2)(iv) of this permit. [Reference: 7 DE Admin. Code 1130 Section 6.8.1 dated 12/11/00]

Condition 5- Compliance Schedule

This permit does not contain a compliance schedule. [Reference: 7 DE Admin. Code 1130 Section 6.3.3 dated 12/11/00]

Condition 6. Permit Shield.

This permit does not provide a permit shield and shall not be presumed to provide such a shield. [Reference: 7 DE Admin. Code 1130 Section 6.6.3 dated 12/11/00]

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Attachment "A"- Revision History

<u>Date</u>	<u>Number</u>	Revision Type	<u>Description</u>	Pages Revised
12/2/98	AQM-003/00111	None	Initial TV issuance	All
1/19/07	AQM-003/00111(R1)	Renewal 1	Renewal 1 of TV Permit Incorporated open flares into the Title v permit	All
5/13/08	AQM-003/00111(R1) Rev. 1	MPM	Added a second responsible official	Title Page
1/7/10	AQM-003/00111(R1) Rev. 2	SPM	With other miscellaneous changes, incorporated conditions of <i>enclosed flares with a H₂S pretreatment</i> system into TV permit	All
5/10/12	AQM-003/00111-R 2	Renewal 2	Proposed permit, addresses DSWA comments	Pages 17, 19, 25, 39, 40, 41

R=Renewal

PEF:TMH:SAT:sb F:\sat\sat12050

pc: Dover File EPA Region III